



EAST AFRICAN COMMUNITY



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EAS 229 (2001) (English): Crepe bandages
— Specification



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EAS 229:2001

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EAST AFRICAN STANDARD

Crepe bandages — Specification

EAST AFRICAN COMMUNITY

Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Partner States in the Community through their National Bureaux of Standards, have established an East African Standards Committee.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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Introduction

Crepe bandage is a plain weave fabric having a high stretch in the warp direction due to the amount of twist in the warp yarns. It is used in the treatment of sprains and strains and in other surgical conditions where light support is required.

This East African Standard specifies performance requirements and includes six preferred sizes in terms of width of bandage.

In the preparation of this standard, reference made to:

MS 2.36:1976	Specification for crepe bandages
SABS 945-1969	Standard specification for crepe bandages

Acknowledge is made for the assistance received from the these source

Crepe bandages — Specification

1 Scope

This East African Standard specifies requirements for crepe bandages used for surgical dressings.

2 Definitions

2.1

Crepe

A plain weave fabric having high elasticity in the warp direction, resulting from the amount of twist in the warp and the method of weaving.

2.2

Fast edge

An edge defined by the outer warp thread.

2.3

Recovery

the recovered extension expressed as a percentage of the imposed extension

3 Requirements

3.1 Bandage

3.1.1 The crepe bandage shall be a plain weave fabric in one continuous length containing no joints, having a high elasticity in the warp direction, resulting from the amount of twist in the warp yarn and the method of weaving, and with fast edges.

3.1.2 The bandage may be either dyed or undyed, and may have a coloured thread woven along the length.

3.2 Yarns

The cotton yarns used for the manufacture of crepe bandages shall be even and of at least appearance grade C as specified in EAS 155-1*.

3.3 Mass per unit area

The mass per square metre of bandage shall be not less than 90 g when tested in accordance with ISO 3801.

3.4 Width

The width of the bandage (measured between the fast edges) shall be 50, 65, 75, 100, 150 or 200 mm as specified on the label, subject to a tolerance of minus 2 mm.

The width shall be tested in accordance with Annex A.

3.5 Length

The unstretched length of the crepe bandage shall be as declared on the label, subject to a tolerance of minus 2 per cent. The length shall be determined in accordance with Annex B.

* Standards referred to in this East African Standard are listed at the back of this standard.

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3.6 Stretch and recovery

The fully-stretched length of the bandage shall be not less than 1.5 times unstretched length, and the recovery shall be not less than 40 per cent.

The stretch shall be determined in accordance with Annex C.

3.7 Foreign matter

The extractable foreign matter in the bandage shall not exceed one per cent of the dry mass.

This shall be tested in accordance with Annex D.

3.8 Colour fastness

Coloured bandages shall comply with the colour fastness ratings given in Table 1.

Agency	Rating, minimum		Method of test
Washing	Colour change	4	EAS 237
	Staining	3	
Rubbing	Wet	3	EAS 239-1
	Dry	4	
Perspiration	Colour change	4	EAS 238
	Staining	3	

4 Packing and marking

4.1 Packing

4.1.1 Each bandage shall be rolled and individually wrapped with paper or polythene.

4.1.2 Bandages of the same width and colour shall be packed in the same bulk container and wrapped suitably so as to be adequately protected against soiling and other contamination.

4.2 Marking

4.2.1 Packages shall be legibly marked on the outside with the following information:

- (i) Manufacturer's name and/or registered trade mark;
- (ii) Width in millimetres;
- (iii) Length;
- (iv) Fibre composition and proportion;
- (v) Country of origin;
- (vi) Date of manufacture or expiry.

4.2.2 Marking on bulk containers

The following information shall appear in legible marking on the outside of each bulk container:

- (i) the information required in clause 4.2.1(i), (ii) and (iv);
- (ii) quantity of rolls.

Annex A

Determination of width

A.1 Procedure

A.1.1 Condition the samples in accordance with EAS 240.

A.1.2 Lay one bandage, without tension, on a flat table.

A.1.3 take width measurements (between the fast edges) perpendicular to the edges of the sample at five different positions equally distributed along the length of the sample.

A.1.4 Repeat the procedure on each of the five bandage samples.

A.2 Calculation

A.2.1 Calculate the average width of each sample from the average of the five measurements.

A.2.1 Calculate the bandage width as the average of the widths of the five samples measured. Report this value as the bandage width.

Annex B

Determination of length

B.1 Procedure

- B.1.1** Condition the samples in accordance with EAS 240.
- B.1.2** Take one bandage sample and lay it, without tension, on a flat table.
- B.1.3** Take the length measurement parallel to the edges of the bandage.
- B.1.4** Repeat the test on all the five bandages.

B.2 Calculation

- B.2.1** Calculate the average length from the five measurements.

Report this value as the length of the bandage.

Annex C

Determination of stretch, stretched length and recovery

C.1 Apparatus

C.1.1 A suitable apparatus having the grips that hold the specimen in a horizontal plane, and capable of applying within approximately 5 s a tensile load of 27 N per 25 mm of width of bandage under test.

C.1.2 a steel tape of length greater than the stretched length of the sample to be measured, graduated in centimetres and millimetres.

C.2 Procedure

C.2.1 Measure the unstretched length of the bandage under tests, according to the procedure given in Annex B. Make a pair of datum marks not less than 30 mm from each end of the bandage and measure, to the nearest 2 mm, the unstretched length between the datum marks. Secure each end of the bandage in a grip of the apparatus, apply the tensile load (see C1.1), and as soon as the full load is attained, measure, to the nearest 2 mm, the stretched length between the datum marks. Maintain the load for 1 min. Release the load, remove the bandage from the grips, lay it on a horizontal flat surface and allow it to relax for 5 min, releasing any drag on the bandage caused by adhesion to the flat surface by gently running a smooth rod under the full length of the bandage. Then measure, to the nearest 2 mm, the recovered length between the datum marks.

C.3 Calculation

Calculate separately the stretched length, the percentage stretch and the percentage recovery as follows:

$$(i) \quad \text{Stretch strength, } M = \frac{L_2}{L_1} \times L_0 \times \frac{1}{1000}$$

$$(ii) \quad \text{Stretch, per cent} = \frac{L_2 - L_1}{L_1} \times 100$$

$$(iii) \quad \text{Recovery, per cent} = \frac{L_2 - L_3}{L_2 - L_1} \times 100$$

where,

L_0 = mean unstretched length of bandage, in mm.

L_1 = mean unstretched length between datum marks, in mm.

L_2 = mean stretched length between datum marks, in mm.

L_3 = recovered length between datum marks, in mm.

Annex D

Determination of foreign matter

D.1 Apparatus

D.1.1 a stoppered bottle

D.1.2 Extraction apparatus

D.1.3 A fine sieve No. 150 micron

D.2 Reagents

D.2.1 Chloroform

D.2.2 0.5 per cent diastase solution

D.3 Procedure

D.3.1 Dry the sample to constant weight at 105 °C. Weigh accurately 5 g of the dried sample and put it in a stoppered bottle and weigh. Repeat drying and weighing until constant weight.

D.3.2 Extract the dried sample with chloroform for one hour in the soxhlet apparatus. Remove the sample from the apparatus and allow the residual chloroform to evaporate.

D.3.3 Transfer the sample to a suitable vessel and add 400 ml of water. Heat slowly and boil for about one minute, cool by adding approximately an equal volume of water.

D.3.4 Decant the liquid through a fine sieve No. 150 micron, squeezing the sample by hand to remove as much of the liquid as possible.

D.3.5 Return the sample to the vessel and repeat the washing process for five further times with 400 ml of water each time.

D.3.6 Place the washed sample and any loose threads or fibres from the sieve in a beaker and immerse with a 0.5 per cent solution of diastase. Maintain the sample at 70 °C until it is free from starch.

D.3.7 Decant the liquid through the sieve, return any loose threads or fibres on the sieve to the sample in the beaker and repeat the washing process with boiling water.

D.3.8 Dry the sample at 105 °C to constant weight.

D.4 Calculation

Calculate the percentage of loss in weight, which is expressed as a percentage of foreign matter, by the following formula:

$$k = \frac{w_0 - w}{w_0} \times 100$$

where,

K = percentage of foreign matter;

w = weight of residue;

w_0 = weight of sample used in the test.

Normative references

EAS 240, *Conditions for testing of textiles*

ISO 3801, *Textiles — Woven fabrics — Determination of mass per unit length and mass per unit area*

EAS 237, *Methods for determination of colourfastness of textile materials to washing*

EAS 238, *Method of determination of colourfastness of textile materials to perspiration*

EAS 239-1, *Method for determination of colourfastness of textile materials to rubbing — Part 1: Dry and wet rubbing*

EAS 155-1, *Cotton yarns — Code of practice for the grading of spun yarns — Part 1: Grading by appearance*

